

Lycopersicon esculentum (tomato) RdRP¹ (cDNA by Wassenegger et al.)
Nicotiana tabacum RdRP¹ (cDNA by Wassenegger et al.)
Arabidopsis thaliana RdRP¹ (AC006917) = AJ011977 (Wassenegger et al.)

MGKTIQVFGFPYLLSAEAVVKSFLEKYTGyGTVCALEVQKS-KGGSRAFAKVQFADNISAD
MGKTIQVFGFPYLLSAEAVKKFLENHTGNGTVYALEVQKS-KGGRRFAKVQFANNKSAE
MGKTIQVFGFPNGVSAEEVKKFLERLTGSGTVYAIKVRQPKKGGPRVYAIVQFTSERHTR

KIITLANNRLYFGSSYLKAWEMKTDIVQ-LRAYVDQMDGITLNFGCQISDDKFAVLGST-
FIIDLASKGLYYGPSYLKAWEMKTDIVQ-PRTYVEHMDGVTLNFGCQISDDKFAVLGSK-
LIITAAERLYYGRSYLKAFEVEQDIVPKPRASLHTISGLKMFFGCQVSTKKFLTLWSAQ

EVS IQFGIGLKKFFFLSSGSADYKLQLSYENIWQVVLHRPYGQNAQFLLIQLF GAPRIY
DVSIKFGIGLKKIYFFLSHASADYKLQLSYENIWQVVLHRPYGQNAQFLLQLFGAPRIY
DVCVSFGIGMRKLHFSFSWYQKDYRLLSYENIWQIDLHSPQGRSSKFLVIQVIGAPKIF

K-----RLENSCYSFFKETPDDQWVRTTDFPPS-WIGLSSSLCQFRRGVRLPNFEESF
K-----RLEDSCYSFFKETPDDQWVRTTDFTPS-WIGLSSSLCLEFRNGVQLPNFSESF
EKEDQPINLLFGIMDFYSDGSEQWIRTTDTFTSSSCIGQSTAFCLELPVHLNVDPFRENF

FHYAERENNITLQTGFTFFVSQKSALVPNVQPPEGISIPYKILFKISSLVQHGCIPGPAL
FYYKESMNQFILQTGFTFSFSQKLALVPIVHLPEGIELPYKILFKISSLIQHGCIPGLAL
ANYAEHRASSFLIESGSSYSSNANTLVPVVDPPPGLSLPFEILFKLNTLVQNACLSPAL

NVYFFRLVDPRRRNVACIEHALEKLYYIKECCYDPVRWLTEQYDGYL-KGRQPPKSPSIT
NFNFFQLVDPRRRNIACIEHALEKLYYKECCYDPVRWLTEQYDEYL-KGRQLPKSPIT
DLDFYRLNQQKYDRALIDHCLEKLFHLECCYEPAHWLRDEYKKWISKGK-LPLSPTIS

LDDGLVYVRRVLVTPCKVYFCGPEVNVSNRVLNRNYSIEDIDNFLRVSFVDEEWEKLYSTDL
LDDGLVYVRRVVVTPCKVYFCGPEVNVSNRVLNRNYSIEDINNFLRVSFVDEEWEKIHS TDL
LDDGLVYMYRVQVTPARVYFSGPEVNVSNRVLNRHYSKYINNFLRVSFVDEDELEKVRSM DL

LPKASTGSGVRTNIYERILSTLRKGFVIGDKKFEFLAFSSSQLRDNSVWMFASRPGLTAN
LPRASTGNGTRTDIYERILSTLRNGFIIGDKRFEFLAFSSSQLRDNSVWMFASRPGLTAN
SPRSSTQ--RRTKLYDRIYSVLRDGI VIGDKKFEFLAFSSSQLRNSAWMFAPIDRITAA

DRAWMGDFSQIKNVAKYAARLGQSFSSRETLSVLRHEIEVIPDVK--VHGTSYVFS DG
DIRTWMGDFRQIRNVAKYAARLGQSFSSRETLSVGRHEVEVIPDVACSLHGTNYIFSDG
HIRAWMGDFDHIRNVAKYAARLGQSFSSRET LNVRSEIEVIPDVEIISLGTRYVFS DG

IGKISGDFAHRVASKCGLQ-YTPSAFQIRYGGYKGVVGVDPDSSMKLSLRKSM SKYESDN
IGKISADFAHRVTIKCGLQ-YTPSSFQIRYGGYKGVVAVDPYSSMKLSLRKSM LKYESNN
IGKISAEFARKVARKCGLTEFSPSAFQIRYGGYKGVVAVDPNSSKLSLRKSM SKFESEN

IKLDVLGWSKYQPCYLNRLITLLSTLGVKDEVLEQKQKEAVDQLDAILHDSLKAQEAL E
IKLDVLGWSKYQPCYLNRLVTLLSTLGVIDDVLEQKQNEAVDQLDAILHDSLKAQEAL E
TKLDVLAWSKYQPCYMNRLITLLSTLGVTDSVFEEKQREVVDRLDAILTHPLEAHEAL G

LMSPGENTNILKAMLNCGYKPD AEPFLSMMLQTFRASKLLDLRTRSRIFIPNGRTMMGCL
LMSPGENTNILKEMLNCGYMPDAEPFLSMMLQTFRASKLLDLRTRTRIFIPNGRTMMGCL
LMAPGENTNILKALILCGYKPD AEPFLSMMLQNFRASKLLELR TKTRIFISGGRSMMGCL

DESRTLEYGQVFVQFTGAGHGEFSDDLHPFNNSRSTNSNFIKGNVVVAKNPCLHPGDIR
DESRTLEYGQVFVQFSGAGRRQFFEE SHPFNDSGSANCDFILKGNVVVAKNPCLHPGDIR
DET RTLEYGQVVVQYS-----DPMRPGRRFIITGPVVVAKNPCLHSGDVR

VLKAVNVRALHHMVD CVVFPQKGKRPHPN ECGSDLDGDIYFVCWDQDMI PPRQVQPM EY
VLRADV PALHHMVD CVVFPQKGKRPHPN ECGSDLDGDIYFVCWD PDLIPPRQVQSMDY
VLQAVNV PALNHMVD CVVFPQKGLRPHPN ECGSDLDGDIYFVCWDQELVPRTSE PMDY

PPAPSIQLDHDV TIEEVEEYFTNYIIVNDSLGI IANAHVVFADREPDMAMSDPCKKLAEL F
TPAPTQLDHDV TIEEVEEYFTNYIINDSLGI IANAHVVFADREPDMAMSDPCKQLAQL F

TPEPTQILDHDVTIEEVEEYFANYIVNDSLGIIANAHTAFADKEPLKAFSDPCIELAKF

SIAVDFPKTGVPAEIPSQLRPKEPDFMDKPDKTSYISERVIGKLFRKVKDKAPQASSIA
SIAVDFPKTGVPAEIPSQLRPKEPDFMEKPDKPTPSEKVIGKLFQKVKNKTPQASSIA
STAVDFPKTGVAAVIPQHLYVKEPDFMEKPDKPTYESKNVIGKLFREVKERAPPLISIK

TFTRDVARRSYDADMEVDGFEDYIDEAFDYKTEYDNKLGNLMDYYGIKTEAILSGGIMK
TFTRDVARKSYDSDMIVDGFEDYIDEAFDYKTEYDNKLGNLMDYYGIKTEAILSGGIMK
SFTLDVASKSYDKMEVDGFEEYVDEAFYQKANYDFKLGNLMDYYGIKTEAILSGGIMR

ASK-TFDRRKDAEAISVAVRALRKEARAWFKRRNDIDDMLPKASAWYHVTYHPTYWGCYN
ASK-TFDRRKDAEAIGVAVRCLRKEARAWFKRRSDIDDMLAKASAWYHVTYHHTYWGLYN
MSKSFTKRR-DAESIGRAVRALRKETLSLFNASEEEENESAKASAWYHVTYHSSYWGLYN

QGLKRAHFISFPWCVYDQLIQIKKDKARNRPVLNLSSLRAQLSHRLVLK
EGLKRDHFISFPWCVYDQLIQIKKAKARKRPVPHLSSLGSQLSRKLVIW
EGLNRDHFLSFAWCVYDKLVRIKKTNLGRRQRQETLERLDHVLRFG

Alignment of the tomato RdRP1 amino acid (1114 AA) sequence with the tobacco RdRP1 amino acid (1116 AA) sequence:
85,8% Identity and 92,4% Similarity

Alignment of the tomato RdRP1 amino acid sequence with the Arabidopsis RdRP1 amino acid (1107 AA) sequence:
61,9% Identity and 76,7% Similarity